

GRANT RECIPIENT
PURDUE UNIVERSITY

YEAR
2009

COUNTY
LAKE

CATEGORY
APPLIED RESEARCH

GRANT AWARD
\$99,127

LOCAL SHARE
\$99,127



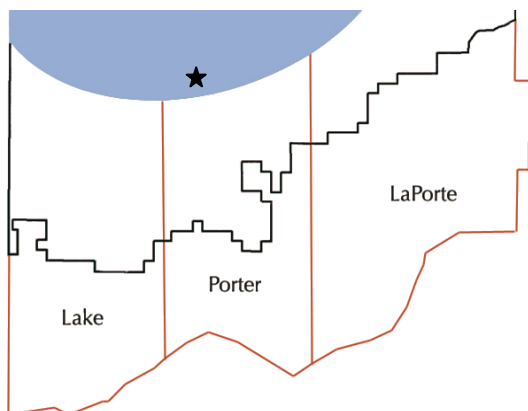
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Concurrent Fine-Scale Mapping of Near Shore Water Quality and Fish Dynamics

This project performed a baseline field study that correlated native and invasive larval fish distributions and growth patterns with observable environmental features and prey fields in Lake Michigan. The study was designed for the purpose of assessing the vulnerability of these species to climate change. The study targeted ecologically and economically important native species (yellow perch and walleye) and invasive species (alewife and round goby).

Recent studies have shown that larval fish growth may be highly correlated with water temperature, and that individual species can have quite different temperature characteristics. The key findings from the research were that there is high thermal variability in the near-shore region as well as spatial and temporal overlap between larval fish and predatory zooplankton. The information was made accessible to both the public as well as state and federal agencies such as the Indiana Department of Natural Resources, and United States Fish and Wildlife Service, and the Indiana Dunes National Lakeshore (IDNL). It is hoped that this project will form the beginning of a longer-term effort by Purdue University researchers to better understand the coupling of biological and physical nearshore dynamics along the IDNL.



RESULT: High thermal variability in near-shore region and spatial and temporal overlap between larval fish and predatory zooplankton in Lake Michigan.